

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Mozart Street Mercury Spill - Removal Polrep
Initial Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #1
Initial
Mozart Street Mercury Spill
Chicago, IL
Latitude: 41.9023033 Longitude: -87.6869188

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Date: 12/13/2014

Reporting Period: 12/12/14 to 12/13/14

1. Introduction

1.1 Background

Site Number:	Contract Number:	
D.O. Number:	Action Memo Date:	
Response Authority: CERCLA	Response Type:	Emergency
Response Lead: EPA	Incident Category:	Removal Assessment
NPL Status: Non	Operable Unit:	

Mobilization Date:	Start Date:
Demob Date:	Completion Date:
CERCLIS ID:	RCRIS ID:
ERNS No.:	State Notification:
FPN#:	Reimbursable Account #:

1.1.1 Incident Category

CERCLA Emergency Response

1.1.2 Site Description

On December 12, 2014 EPA and START mobilized to two City of Chicago locations to investigate for suspected mercury contamination at the request of the Chicago Department of Health.

1.1.2.1 Location

Both sites are located south of the Logan Square neighborhood in Chicago, Illinois. The area is a mix of multi-story single-to multi-family homes along with apartment buildings.

1.1.2.2 Description of Threat

Unknown volume of elemental mercury. According to the Agency for Toxic Substances and Disease Registry the nervous system is sensitive to metallic mercury. Exposure to very high levels of metallic mercury vapor can cause brain, kidney, and lung damage and may seriously harm a developing fetus. Exposure to mercury vapor concentrations high enough to produce such serious effects might also cause coughing, chest pains, nausea, vomiting, diarrhea, increases in blood pressure or heart rate, skin rashes, and eye irritation. Exposure to lower levels of airborne mercury for prolonged periods of time would produce more subtle effects, such as irritability, sleep disturbances, excessive shyness, tremors, coordination problems, changes in vision or hearing, and memory problems

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

EPA and START conducted an initial assessment of the residence and church. The results are summarized in the Table below. EPA and START did not observe the presence of beads of mercury in either structure.

START Initial Outdoor / Indoor Mercury Vapor Screening Results

Residence on 12/12/14
1910 N Mozart, Chicago, IL

Location	Sub-location	Floor (ng/m3)	BZ (ng/m3)	Temp (°F)
Outside	--	--	15	32°
1 st Floor	Initial Entry	7,511	10,114	68°
	Living Room	17,000	11,001	
	Dining Room	8,417	7,349	
	1 st Bedroom	9,457	9,351	
	2 nd Bedroom	11,106	7,759	
	Hallway to Kitchen	12,415	--	
	Kitchen	11,084	9,023	
	Pantry	5,237	9,027	
Basement	Initial Room	8,734	7,728	

	Hallway	11,117	--	
	Bathroom	7,788	10,897	
	Laundry	18,881	11,556	

START Initial Outdoor / Indoor Mercury Vapor Screening Results

San Lucas United Church (also Boys and Girls Club)

2914 W North Ave, Chicago, IL

Date	Location	Sub-location	Floor (ng/m3)	BZ (ng/m3)	Temp (°F)
12/12/14	Outside	--	--	4	32°
	1 st Floor	Front Pews	4,003	1,160	68°
		Carpet	4,043		
	Basement	Table	1,972	1,253	
		Serving Counter	5,240		
		Floor	5,596		
		Women's Bathroom	2,413	1,251	
12/13/14	Outside	--	--	2	32°
	1 st Floor	Front Pews	500	182	72°
		Carpet	821		
	Basement	Table	4,334	302	
		Serving Counter	1,360		
		Floor	1,942		
		Women's Bathroom	1,167	243	

Notes:

°F = Degrees Fahrenheit

BZ = Breathing Zone

ng/m3 = nanograms per cubic meter

Readings observed with a Lumex 915+ Mercury Analyzer

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On December 12, 2014 EPA and START mobilized to two City of Chicago locations to investigate for suspected mercury contamination. A church basement and first floor of a multi-unit building located at 2914 W North Avenue and the basement and first floor of a multi-unit residential building located at 1910 N Mozart Street were reportedly contaminated with liquid mercury due to a young individual showing and handling the material with family and friends.

The site at 2914 W North Avenue (San Lucas Church) consists of an approximate 600 sq ft worship area with pews and an altar on the first floor and an approximate 400 sq ft meeting area and cafeteria (as used as a meeting place for a Boys and Girls Club) in the basement. The building is a total of three stories above grade however mercury exposure reportedly only occurred on the first floor and basement levels.

The site at 1910 N Mozart Street consist of an approximate 1,000 sq foot unit consisting of a basement and first floor. The building is a two story multi-family residential house with a separate family renting the second floor. Mercury is known to have been released on the first floor and basement levels where the family of the young individual resides.

2.1.2 Response Actions to Date

On December 12, 2014 EPA and START conducted an assessment at the church at 2914 W North Ave, Chicago, IL and a residence at 1910 N Mozart St, Chicago, IL. At both locations vapors were detected with a Lumex 915+ Mercury Analyzer in the breathing zone and surfaces (e.g. floor, tables, etc.) (see Section 1.1.3 for tabulated results of the screening)

EPA and START screened the first floor and basement of the church for mercury vapors. Elevated mercury vapor results (greater than 1,000 ng/m³) caused EPA to temporary limit use of the basement. EPA suggested the maintenance manager heat and vent the building overnight.

EPA and START screened the first floor and basement of the young individuals residence for mercury vapors. Mercury vapors in ambient air were approximately 10,000 ng/m³ upon entry causing EPA to suggest relocation of the individuals residing in the unit. The highest mercury vapor readings were on the basement floor with a result of approximately 18,000 ng/m³. Prior to the relocating, START screened clothes and other articles that were removed from the residence.

On December 13, 2014, EPA and START returned to the church to screen for mercury vapors on the first floor and basement. Overall ambient air results were lower, however elevated mercury vapor in the basement remained above 1,000 ng/m³. At one floor location, the mercury vapor results were above 4,000 ng/m³. EPA suggested that the maintenance manager procure sulfur powder and spread over the floors, then carefully clean the sulfur powder that has bonded (clumped) in an attempt to remove the liquid mercury. EPA also suggested to heat and vent the building over the weekend. Unrestricted use of the first floor was suggested due to low mercury vapor results.

EPA and START then mobilized to the residential structure to screen additional clothes and articles for a resident of the building to relocate with.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Ongoing

2.1.4 Progress Metrics

None

2.2 Planning Section

2.2.1 Anticipated Activities

On December 15, 2014, EPA and START will return to the church and residential structure to perform additional screening. Based on screening levels at the church, no additional action may be required. If no other resources are available through the home owners insurance or the city of Chicago, a removal action may be conducted at the residence.

2.2.1.1 Planned Response Activities

On December 15, 2014, EPA may deploy START and ERRS to perform a removal action at the residence (see Section 2.2.1). Removal action at the church will depend on screening results obtained by START on December 15, 2014 and if no other sources are available to perform the removal (e.g. insurance or local government support).

2.2.1.2 Next Steps

Obtain insurance claim denial form from the residence.

Obtain and official access agreement.
Mobilize to the residence and / or church if no other resources are available.

2.2.2 Issues

None at this time.

2.3 Logistics Section

Logistics will be provided by ERRS.

2.4 Finance Section

2.4.1 Narrative

Finance ceilings and costs for this site have not been established.

2.5 Other Command Staff

2.5.1 Safety Officer

EPA OSC is the on-site Safety Officer for the response.

2.5.2 Liaison Officer

NA

2.5.3 Information Officer

NA

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

Chicago Fire Department
Agency for Toxic Substance and Disease Control
Chicago Department of Health
Chicago School Representatives

4. Personnel On Site

Organization Position		# Personnel
EPA	OSC	1
Tetra Tech	START	2

5. Definition of Terms

CHD = Chicago Health Department
ng/m3 = nanogram per meters cubed
START = Superfund Assessment and Response Team
ATSDR =Agency for Toxic Substances and Disease Registry
ERRS= Emergency and Rapid Response Services

6. Additional sources of information

6.1 Internet location of additional information/report

None

6.2 Reporting Schedule

Not established

7. Situational Reference Materials